

WHAT IS CLAIMED IS:

1. A method of accessing network resources using an Internet address having a non-ICANN compliant top-level domain (TLD) name, the method comprising:
 - receiving from a user's client terminal data corresponding to a first Internet address utilizing only RFC 1035 compliant characters, the first Internet address including a non-ICANN compliant TLD, at a user's Internet Service Provider's (ISP) domain name system server (DNS server);
 - receiving at the user's client terminal a negative response from the ISP DNS server in response to receiving the data corresponding to the first Internet address;
 - receiving the first Internet address at an address converter system executing on the user's client terminal, wherein the address converter system appends an extension, including at least an ICANN compliant TLD, to the first Internet address, thereby creating a second Internet address;
 - submitting the second address to the ISP DNS server to locate a corresponding IP (Internet Protocol) address;
 - providing the corresponding IP address to a user browser; and
 - connecting the user browser to a system corresponding to the IP address.
2. The method as defined in Claim 1, further comprising:
 - receiving the first Internet address using an application program interface; and
 - communicating the first Internet address from the application program interface to a first name space provider and a second name space provider.
3. The method as defined in Claim 1, further comprising:
 - communicating the first Internet address to a first name space provider;
 - attempting to look up the first Internet address using the first name space provider, wherein the DNS server's negative response is received as a result of the lookup attempt;
 - communicating the first Internet address to a second name space provider, wherein the second name space provider performs the act of appending

the ICANN compliant TLD to the first Internet address to create the second Internet address;

transmitting a first response, indicating the second Internet address cannot be resolved, from the second name space provider; and

communicating the second Internet address to the first name space provider, wherein the first name space provider performs the act of submitting the second address to the ISP DNS.

4. The method as defined in Claim 1, wherein the address converter system includes a Layered Service Provider (LSP) configured to filter Internet addresses containing non-ICANN compliant TLDs.

5. The method as defined in Claim 1, wherein ICANN compliant TLD names include .com, .net, .org, .gov, .edu, .mil, .arpa, .int, .biz, .info, .name, .pro, .aero, .museum, .coop, and two lettered country codes.

6. A system for accessing network resources using resource addresses in a networked environment which requires the resource addresses to have a top-level domain (TLD) name compliant with a first standard, the system comprising:

a first instruction configured to determine whether a first RFC 1035 compliant address has a non-standard TLD belonging to a first set of non-standard TLD names;

a second instruction configured to append an extension, including at least a standard TLD, to the first RFC 1035 compliant address at least partly in response to the first instruction determining that the first address has a non-standard TLD belonging to the first set of non-standard TLD names; and

a third instruction configured to provide the first address with the appended standard TLD to a service that will convert the first address with the appended standard TLD into an IP address.

7. The system as defined in Claim 6, further comprising a first name space provider and a second name space provider, wherein the first name space provider is used to resolve addresses having standard TLD names and the second name space provider is used to resolve addresses having non-standard TLD names.

8. The system as defined in Claim 6, further comprising a windows socket layer that supports the first and second name space providers and interfaces a browser thereto.

9. The system as defined in Claim 6, further comprising a fourth instruction configured to provide data corresponding to the first address with the appended standard TLD to a proxy server, so that the proxy server will provide the data corresponding to the first address with the appended standard TLD to a domain name system server for resolution.

10. The system as defined in Claim 6, wherein the first instruction and the second instruction are included in a program embedded in a webpage.

11. The system as defined in Claim 6, wherein the first instruction and the second instruction are included in a program downloadable from a webpage.

12. The system as defined in Claim 6, wherein the first instruction and the second instruction are included in a program stored on machine readable storage media.

13. A method of accessing network resources using an Internet address having a non-standard top-level domain (TLD), the method comprising:

providing to a client system a Layered Service Provider (LSP) configured to filter Internet addresses containing non-standard TLDs and to append a corresponding extension, including at least a standard TLD, thereto;

receiving at the LSP a first Internet address having a non-standard TLD, wherein the LSP determines that the first Internet address's non-standard TLD is in a first set of non-standard TLDs;

upon determining that the first Internet address's non-standard TLD is in the first set of non-standard TLDs, adding an extension, including at least a predetermined standard TLD, to the first Internet address to create a modified first Internet address; and

providing data corresponding to the modified first Internet address to a proxy server, so that the proxy server can provide the modified first Internet address to a domain name system server.

14. The method as defined in Claim 13, further comprising updating the first set of non-standard TLDs.

15. The method as defined in Claim 13, wherein the LSP detects the non-standard TLD in one of an HTTP and a proxy application level protocol, and modifies the Internet address contained in an appropriate protocol header.

16. A method of processing email addresses having non-standard top-level domain names, the method comprising:

using a Layered Service Provider (LSP) to intercept, on a sender's client system, email having a first recipient email address with a non-standard TLD;

adding, via the LSP, an extension, the extension including a standard TLD, to the recipient's first email address to generate a modified recipient email address;

submitting the modified recipient email address to the sender's SMTP server;

contacting a DNS (domain name system) server to locate a corresponding IP address for an email server system associated with the modified recipient email address;

returning the corresponding IP address to the sender's SMTP server;

submitting the email to the email server system for delivery to the recipient using the corresponding IP address; and

providing the email to the recipient.

17. The method as defined in Claim 16, wherein the act of submitting the email to the email server system for delivery to the recipient further comprises appending the email to an email file associated with the recipient.

18. The method as defined in Claim 16, wherein the email is provided to the recipient via an email client host on a client computer.

19. The method as defined in Claim 16, wherein the email is provided to the recipient via a web-based email system.

20. The method as defined in Claim 16, wherein the email server system includes an SMTP server and a POP server.

21. The method as defined in Claim 16, wherein the LSP is installed on top of a default Transport Service Provider (TSP).

22. A method of processing email addresses having non-ICANN compliant level domain (TLD) names, the method comprising:

determining on a sender's client system whether a first email address for an email being dispatched by the sender contains a non-ICANN compliant TLD name, wherein the first email address is associated with an intended email recipient;

appending at least an ICANN compliant TLD to the first email address at least partly in response to determining that the email address contains a non-ICANN compliant TLD name, thereby forming a second email address;

submitting the second email address to a domain name system server (DNS server) via an SMTP server to locate an IP address corresponding to a server associated with the second email address;

locating the IP address; and

using the located IP address to transmit the email so that it can be accessed by the recipient.

23. The method as defined in Claim 22, further comprising:

receiving the email and the second email address on the recipient's client system;

automatically removing at least the ICANN compliant TLD from the end of the second email address to recreate the first email address; and

presenting the email in conjunction with the first email address to the recipient.

24. The method as defined in Claim 22, further comprising utilizing a Layered Service Provider (LSP) to filter email addresses containing non-ICANN compliant TLD names and to append at least corresponding ICANN compliant TLD names thereto.

25. The method as defined in Claim 22, transmitting the email and data corresponding to the second email address to a proxy server associated with the sender's client system.

26. The method as defined in Claim 22, wherein the mail server includes a Simple Mail Transfer Protocol (SMTP) server.

27. The method as defined in Claim 22, wherein the server associated with the second email address includes an SMTP server and a Post Office Protocol (POP) server.

28. A system for processing an email address having a non-ICANN compliant level domain (TLD) name, the method comprising:

a first instruction configured to determine whether a first email address for an email being dispatched by a sender contains a non-ICANN compliant TLD name, wherein the first email address is associated with an intended email recipient;

a second instruction configured to form a second email address by appending an extension including at least an ICANN compliant TLD name to the first email address at least partly in response to a determination by the first instruction that the first email address contains a non-ICANN compliant TLD name; and

a third instruction configured to provide the second email address so that the second email address can be submitted to a domain name system server (DNS server) via a server system to thereby locate a corresponding IP address.

29. The system as defined in Claim 28, wherein the first instruction is included in a Layered Service Provider (LSP).

30. The system as defined in Claim 28, further comprising a fourth instruction configured to remove the appended extension.

31. A system for processing an email address having a non-ICANN compliant top-level domain (TLD) name, the system comprising:

a first instruction configured to determine whether a first email address for a first received email contains a predetermined domain; and

a second instruction configured to form a second email address by removing for display the predetermined domain.

32. The system as defined in Claim 28, wherein the first instruction is included in a Layered Service Provider.

33. The system as defined in Claim 28, further comprising a third instruction configured to display the second email address to a user.

34. The system as defined in Claim 28, wherein the domain had been appended by a sender client system.

35. A method of accessing network resources, the method comprising:
using a Layered Service Provider (LSP) to identify a first Internet address having a non-standard TLD, wherein the LSP determines that the first Internet address's non-standard TLD is in a first set of non-standard TLDs; and
adding an extension, including at least a predetermined standard TLD, to the first Internet address to create a modified first Internet address.